

08CI.7174-16

**BEST AVAILABLE COPY****REMARKS**

Claims 1-16 are pending in the present Application. Claims 6-13 are currently withdrawn from consideration. Reconsideration and allowance of the claims are respectfully requested in view of the above amendments and the following remarks.

Claim Rejections Under 35 U.S.C. § 103(a)

Claims 1-5 and 14-16 stand rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over U.S. Patent No. 5,576,256 to Monque. Applicants respectfully traverse this rejection.

Monque discloses a catalyst system comprising a catalytically active matrix, a support system distributed through the matrix and a catalytically active phase. (Claim 1) The catalytically active matrix includes aluminum and supports the catalytically active phase that includes a group IIIA metal, a group VIII metal, a group VIB metal and a group VA metal. The support system or medium is a hydrothermally stable porous crystalline silicious molecular sieve material such as a zeolite catalyst. The catalyst system is made by impregnating the zeolite with gallium and/or chromium, drying the impregnated zeolite, mixing the impregnated zeolite with alumina gel to form a catalyst element and impregnating the catalyst element with an aqueous solution of salts of the group VIII, VIB, and VA metals. The impregnated catalyst element is then calcined. Calcining may be carried out at 600°C for 6 hours or in a two stage process, first at a temperature of 120-350°C and then at a temperature of 350-700°C. (Col. 5, lines 10-17)

Claim 1 of the pending application states: A process for preparing a zeolite catalyst comprising (a) first, heating a zeolite at a first temperature in the range of 350 - 450°C in a first flowing gas for 4-6 h; (b) second, calcining the zeolite at second temperature in the range of 450 - 1000°C for 1 - 3 hours in a continuous flow of a second gas, wherein said second temperature is at least 100°C greater than said first temperature; and (c) third, cooling the zeolite catalyst to a temperature of from 225 - 500°C.

While Applicants agree that Monque teaches a two stage calcination process, Applicants respectfully point out that two step calcination process of Monque is significantly different from

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the instantly claimed process in at least two ways. Firstly, the initial stage of Monque is carried out at a temperature range that is significantly lower (120-350°C) than is instantly claimed (350-450°C) although the two ranges do overlap at the extremity of their ranges. Secondly, Monque does not teach or suggest the requirement that the second stage temperature is at least 100°C greater than the first stage temperature as is instantly claimed. The ranges of Monque, with the lower range at its extremity and the appropriate selection of temperature for the second stage, permit a calcination process that is within the instantly claimed process. However, Monque provides no guidance to make these selections. Indeed, calcination could be carried out at a single temperature according to Monque, even in a two stage process. Further, since Monque provides no suggestion or motivation to make these particular temperature selections; one would only know to make these selections with our knowledge of the solution. Monque does not teach or suggest that calcination conditions have any effect whatsoever on the success of the reaction that the catalyst is employed in. Monque teaches a general preference for a two stage calcination but in the examples Monque does not even describe the calcination conditions for the catalysts employed (see, for example, Col. 6, lines 66-67, Col. 11, lines 65-67, Col. 12, lines 8-10 and lines 59-61).

For an obviousness rejection to be proper, the Examiner must meet the burden of establishing a *prima facie* case of obviousness, i.e., that all elements of the invention are disclosed in the prior art; that the prior art relied upon, coupled with knowledge generally available in the art at the time of the invention, contain some suggestion or incentive that would have motivated the skilled artisan to modify a reference or combined references; and that the proposed modification of the prior art had a reasonable expectation of success, determined from the vantage point of the skilled artisan at the time the invention was made. *In re Fine*, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988); *In re Wilson*, 165 U.S.P.Q. 494, 496 (C.C.P.A. 1970); *Amgen v. Chugai Pharmaceuticals Co.*, 927 U.S.P.Q.2d, 1016, 1023 (Fed. Cir. 1996).

Applicants respectfully assert that Monque does not teach that the temperature of the second stage of calcination has to be at least a 100 degree higher than the first calcination temperature as is instantly claimed. Monque also implies that calcination conditions have

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little or no effect on the conversion/selectivity/yield of a reaction employing the calcined catalyst and thus Monque provides no motivation to make the claimed selection of calcination temperatures. Furthermore, because Monque discloses no relationship between conversion/selectivity/yield and calcination there can be no reasonable expectation of success for having a second calcination temperature that is at least 100 degrees higher than the first calcination temperature.

Applicants further maintain that the Examiner has used an improper standard in arriving at the rejection of the above claims under section 103, based on improper hindsight which fails to consider the totality of applicant's invention and to the totality of the cited reference. More specifically the Examiner has used Applicant's disclosure to select portions of the cited references to allegedly arrive at Applicant's invention. In doing so, the Examiner has failed to consider the teachings of the reference or Applicant's invention as a whole in contravention of section 103, including the disclosures of the reference which teach away from Applicant's invention. Applicants therefore respectfully request reversal of the rejection under 35 U.S.C. ' 103(a) and allowance of the claims.

It is believed that the foregoing amendments and remarks fully comply with the Office Action and that the claims herein should now be allowable to Applicants. Accordingly, reconsideration and allowance are requested.

If there are any additional charges with respect to this Amendment or otherwise, please charge them to Deposit Account No. 07-0862.

Respectfully submitted,

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